SUBMISSION AGREEMENT
BETWEEN
THE GEWEX SURFACE RADIATION BUDGET PROJECT
AND
THE NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION
FOR GEWEX SURFACE RADIATION BUDGET (SRB)

2012-08-06

Introduction

This document represents the agreement that the GEWEX Surface Radiation Budget Project (NASA) (the "Provider") and the National Centers for Environmental Information (NCEI) (the "Archive") have reached for submitting the Provider's data, GEWEX Surface Radiation Budget (SRB), to the Archive for long-term preservation. It represents a joint effort between the Provider and the Archive to accurately document the agreement and the expectations between the two groups.

In order to ensure that the quality and integrity of the archived data is not compromised, the Provider and the Archive agree to maintain this agreement with accurate and up-to-date information through the life of the data submission.

Add comments as needed

Contacts

Persons included in all communications regarding the data submission.

Provider Contacts

Point of Contact, Principal Investigator

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Archive Contacts

Data Acquisition, Ingest, Storage, Access,

Stewardship, User

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Data Overview

The NASA/GEWEX Surface Radiation Budget (SRB) Release-3.0 data sets contains global 3-hourly, daily, monthly/3-hourly, and monthly averages of surface and top-of atmosphere (TOA) longwave and shortwave radiative parameters on a 1x1 grid. Model inputs of cloud amounts and other atmospheric state parameters are also available in

some of the data sets. Primary inputs to the models include: visible and infrared radiances from International Satellite Cloud Climatology Project (ISCCP) pixel-level (DX) data, cloud and surface properties derived from those data, temperature and moisture profiles from GEOS-4 reanalysis product obtained from the NASA Global Modeling and Assimilation Office (GMAO), and column ozone amounts constituted from Total Ozone Mapping Spectrometer (TOMS), TIROS Operational Vertical Sounder (TOVS) archives, and Stratospheric Monitoring-group's Ozone Blended Analysis (SMOBA), an assimilation product from NOAA's Climate Prediction Center. SRB products are reformatted for the use of renewable energy and agricultural communities and made available through the Surface meteorology and Solar Energy (SSE) website. SRB products now overlap a portion of surface and TOA flux data sets that are available from Clouds and the Earth's Radiant Energy System (CERES) project. These CERES data products and those from the CERES Fast Longwave and SHortwave Radiative Fluxes (FLASHFlux) project extend past the SRB time frame. The latter project provides radiative fluxes on a near real-time basis. The CERES and CERES/FLASHFlux data sets also make use of global observations from Moderate-resolution Imaging SpectroRadiometer (MODIS) instruments.

Release-3.0 products differ substantially from earlier SRB Releases (2.0 and 2.5) arising from numerous improvements of the algorithms and input data sets. Temporal coverage of Release-3.0 is extended to December 2007; Release-2.5 ended in June 2005. A modified version of the GEWEX Longwave data set, denoted as version 3.1, corrects for a numerical instability issue that was found to affect a small number of 3 hourly grid box TOA outgoing and surface downward fluxes in the release 3.0 longwave products .On-line documentation provides information on all changes applicable to Release-3.0. Users are encouraged to consult on-line documentation prior to using these data sets. In addition to the big-endian binary formatted files of previous releases, Release-3.0 SW/3.1 LW are now available in netCDF format.

Applicable and Reference Documents
Documents applicable to or referenced from this agreement.

1. Citation for applicable/reference document, e.g,. an archive appraisal or project requirements document

Submission Scope

Active Submission Period
 - 2012-09-07

Data Types
Below is a summary of the data sizing and submission schedule by data type group. Enter information on at least one data type.

Data Type Name	Data Sizing	Submission Schedule
Longwave Monthly, NetCDF, 7/1983-12/2007	450 MB, 588 files	
Shortwave Monthly Local, NetCDF, 7/1983-12/2007	801 MB, 588 files	
Shortwave Montly UTC, NetCDF, 7/1983-12/2007	829 MB, 588 files	

Reviews and Testing
Verify data transmission

Providing System
Identification of the system providing the data to NCEI.

System Name:	typhoon.larc.nasa.gov
System Owner:	NASA
Physical Location:	Hampton, VA
Additional Information:	Add comments as needed on applicable data types, etc.

Transfer Interface
FTP Push (or Pull)

Submission File Inventory
Information on each submitted file type from the Provider. Information on multiple file types can be added below.

File Type Name: SRB Rel 3.1 Longwave Monthly Data in NetCDF

File Name Pattern:

srb_rel3.1_longwave_monthly_yyyymm.nc

srb_rel3.1_longwave_monthly_yyyymm_nc.met

File Name Field Definitions:

srb=Surface Radiation Budget

rel=Release

yyyymm=year and month

nc=netCDF

Example File Name:

srb_rel3.1_longwave_monthly_198307.nc

File Format: netCDF

File Compression: None

File Size Average: 1.5MB

File Count (Rate): 24 files per data year (7/1983-12/2007)

Data Volume (Rate): 17.85 MB per data year

Submission Schedule: 8/27/12-9/17/12

Additional Information: files will be tarred by product and year for data transfer

Descriptive Information Attributes:

Attribute	Source	Use
Name of attribute	Source of attribute value, e.g., file name	For search, results display, and/or cross-referencing

File Type Name: SRB Rel 3.0 Shortwave Monthly Data Local Time in NetCDF

File Name Pattern:

srb_rel3.0_shortwave_monthly_local_yyyymm.nc

srb_rel3.0_shortwave_monthly_local_yyyymm_nc.met

File Name Field Definitions:

srb=Surface Radiation Budget

rel=Release

yyyymm=year and month

nc=netCDF

local=localtime

Example File Name:

srb_rel3.0_shortwave_monthly_local_198307.nc

File Format: netCDF

File Compression: None

File Size Average: 2.7MB

File Count (Rate): 24 files per data year (7/1983-12/2007)

Data Volume (Rate): 32.7 MB per data year

Submission Schedule: 8/27/12-9/7/12

Additional Information: files will be tarred by product and year for data transfer

Descriptive Information Attributes:

Attribute	Source	Use
Name of attribute	Source of attribute value, e.g., file name	For search, results display, and/or cross-referencing

File Type Name: SRB Rel 3.0 Shortwave Monthly Data UTC in NetCDF

File Name Pattern:

srb_rel3.0_shortwave_monthly_utc_yyyymm.nc

srb_rel3.0_shortwave_monthly_utc_yyyymm_nc.met

File Name Field Definitions:

srb=Surface Radiation Budget

rel=Release

yyyymm=year and month

nc=netCDF

utc=universal time constant

Example File Name:

srb_rel3.0_shortwave_monthly_utc_198307.nc

File Format: netCDF

File Compression: None

File Size Average: 2.7MB

File Count (Rate): 24 files per data year (7/1983-12/2007)

Data Volume (Rate): 32.7 MB per data year

Submission Schedule: 8/27/12-9/7/12

Additional Information: files will be tarred by product and year for data transfer

Descriptive Information Attributes:

Attribute	Source	Use
Name of attribute	Source of attribute value, e.g., file name	For search, results display, and/or cross-referencing

Submission Manifest

A submission manifest file with a 32-character MD5 checksum value is required for each submitted file in order to ensure the integrity of the submitted data.

File Content Specification:

A submission manifest file contains a comma delimited list of submitted file names and associated checksums all the submitted files.

File Transmission:

The submission manifest file will be transferred via FTP Push (Pull).

File Name Pattern:

example: srb_rel3.1_longwave_monthly_yyyy_nc.tar. The submission manifest for each data file will be included in the tar. An additional file containing the checksum of the tar file itsself will also be supplied.

File Name Definitions:

srb=Surface Radiation Budget

rel=Release

yyyy=year

nc=netCDF

Example File Name:

srb_rel3.1_longwave_monthly_1983_nc.tar

Archive Ingest

Ingest processing steps at the Archive and communication with the Provider.

Receipt Verification:

The Archive will use the provided file name and 32-character MD5 checksum value to verify the integrity of a delivered file.

Error Reconciliation:

The Archive will report any problems or errors with file integrity, file name, checksum validation, or other errors that inhibit the data ingest and archive to the Provider. A new corresponding submission manifest will be required for files re-submitted by the Provider.

Receipt Confirmation:

The Archive will provide an inventory of the data ingested once it is completed or as requested by the Provider.

Quality Assurance:

No quality checks on the submitted data are planned.

Archive File Packaging:

Description of file packaging or re-naming by the Archive upon ingest.

Archive Storage

Archive attributes of each archived file type.

Archive File Type Name: SRB Rel 3.1 Longwave Monthly Data in NetCDF

Archive File Attributes/IDs:

Attribute/ID Type	Value
Archive File ID	SRB Rel 3.1 Longwave Monthly Data in NetCDF

Archive File Type Name: SRB Rel 3.0 Shortwave Monthly Local Data in NetCDF

Archive File Attributes/IDs:

Attribute/ID Type	Value
Archive File ID	SRB Rel 3.0 Shortwave Monthly Local Data in NetCDF

Archive File Type Name: SRB Rel 3.0 Shortwave Monthly UTC Data in NetCDF

Archive File Attributes/IDs:

Attribute/ID Type	Value
Archive File ID	SRB Rel 3.0 Shortwave Monthly UTC Data in NetCDF

Archive Updates

Data submissions intended to update an existing archive record require adequate notification and justification. Updates can supersede previous data submissions as a newer or improved version, however any previously submitted data will not be removed from the archive for the purpose maintaining version control and traceability in the archive.

Retention Schedule

The data will be retained in the Archive for long-term preservation in accordance with NOAA data management standards. Information on data usage and archive value may be used for making decisions on continuing the duration of the archive.

(Notional) Disposition: Unknown/TBD

Constraints

No constraints apply or will apply to the archived data.

User Community

Radiation Budget user community

User Documentation and Metadata

The Provider will supply information to the Archive for writing and maintaining standard archive metadata, which includes data discovery information, references and data archive access links for users. The following published documents and archived items will be referenced from the metadata and made available to users.

Representation Information Items

For data to be useful to users, present and future, its format specification and characteristics must be documented and preserved with the data. Representation Information provides users with syntax (structure) and/or semantics (meaning) to decode the encoded data.

Item	Description
read_srb_rel3_sw_montly_readsw.zip read_srb_rel31_longwave_monthly_nc_readsw.zip	Read software for longwave and shortwave SRB data

Preservation Descriptive Information Items

Preservation Descriptive Information items contain context, provenance, and/or quality information for the data.

Item	Description
README_SRB_REL3.0_SHORTWAVE_MONTHLY.TXT README_SRB_REL3.1_LONGWAVE_MONTHLY_NC.TXT	Readme files for SRB data sets

Access and Dissemination

The Archive will provide access services for the data and supporting information to the designated user community.

Additional Terms

None.